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| | | | EXAMINER | |
| | | | MAKI, STEVEN D | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/560,890

Applicant(s)

STEINBACH, GUNTER

Examiner

Steven D. Maki

Art Unit

1747

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 38-51 and 53-75 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 38-51 and 53-75 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-06)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

- 1) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 2) Claims 65-74 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 65 is indefinite because the preamble recites "A method of improving performance on both wet and dry ground of a motorcycle, the motorcycle comprising a pair of pneumatic motorcycle tires mounted on respective front and rear wheels of the motorcycle" whereas the body describes only "providing" steps. Thus, claim 65 is indefinite because it appears to fail to require an active/positive method step such as mounting the tires. It is suggested to appropriately amend claim 65 to recite a step of mounting the tires on the motorcycle. "Mounting" is an active method step.

Claim 65 continues to describes only "providing" steps. A providing step is not indefinite per se. A method claim may describe a providing step so long the method claim comprises at least one active method step. However, a method claim which recites *only* providing steps renders such a "method" claim indefinite because "providing" is not an active step; it being noted that it is impossible to have an article if the article is not provided.

With respect to 112 second paragraph, applicant comments that claim 65 has been amended. Examiner comments that claim 65 remains indefinite because this "method" claim describes *only* "providing steps" instead of "providing" step(s) and active method step(s).

With respect to "to promote" (claim 65), it is unclear from what the specified capacity is promoted.

With respect to the description of "enhancing" (claims 66, 67, 68 and 72), it is uncertain if the enhancing steps are active method steps. Furthermore, it is unclear from what the specified capacity is enhanced.

3) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4) **Claims 38-51, 53-58, 61 and 63-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Armellin (US 6,244,315) in view of Haas (US 4,606,389) or Japan 215 (JP 6-183215) and further in view of Japan 218 (JP 11-208218) or Japan 907 (JP 63-116907) and optionally further in view of optionally German 624 (DE 3901624).**

Armellin, directed to motorcycle tires, discloses a front motorcycle tire having a size such as 120/70ZR17 and a rear motorcycle tire having a size such as 180/55ZR17. Armellin teaches mounting the front motorcycle tire and rear motorcycle tire on a motorcycle. Armellin teaches that the front and rear tires have a transverse curvature coefficient of at least 0.15 and that the transverse curvature of the front tire is greater than the transverse curvature of the rear tire to obtain good stability and good maneuverability. Thus, the rear motorcycle tire has a curvature ratio lower than the front motorcycle tire. Armellin et al shows the tread of the front tire having grooves.

See Figure 1 and col. 8 lines 19-23. Armellin et al does not specifically providing the front motorcycle tire with a circumferential grooves and transverse grooves wherein the transverse grooves are connected to the circumferential groove.

As to claims 38 and 65, it would have been obvious to one of ordinary skill in the art to provide Armellin's front motorcycle tire with a tread comprising a circumferential groove and transverse grooves wherein the transverse grooves are connected to the circumferential groove since (1) Haas discloses a **front tire for a motorcycle (two wheeled vehicle)** with a tread having a *straight circumferential groove on the equatorial plane (centerline)* of the tire and inclined grooves on both sides of the circumferential groove wherein the inclined grooves are connected to the circumferential groove and the front tire has reduced danger of aquaplaning (hydroplaning) or (2) Japan 215 discloses a **front tire for a motor scooter (two wheeled vehicle)** with a tread having a *zigzag circumferential groove at the equatorial plane (centerline)* and inclined grooves on both sides of the circumferential groove wherein the inclined grooves are connected to the circumferential groove and the front tire reduces splashing of water in front of the driver and prevents hydroplaning (prevents the tread surface from coming floating on the water screen) . The claimed sea/land ratio of greater than or equal to about 15% (claim 65) would have been obvious and could have been determined without undue experimentation in view of the suggestion from Haas or Japan 215 to use inclined grooves connected to a center circumferential groove to prevent hydroplaning. Thus, the applied prior art to Haas or Japan 215 provides ample motivation (prevention of

hydroplaning) to provide the front tire of Armellin's motorcycle tire (tire for two wheeled vehicle) with the claimed front tire tread pattern.

Furthermore, it would have been obvious to provide Armellin's rear motorcycle tire (e.g. having a size such as 180/55ZR17), which provides a thrust of a linear nature rather than a curvilinear nature (col. 2 lines 53-57), with a tread having inclined grooves and a central area defining a substantially null sea/land ratio wherein the central zone of the tread band of the rear tire has a width greater than or equal to about 5% and less than or equal to about 30% of an axial development of the tread band of the rear tire since (1) (a) Japan 218's suggests providing a **rear motorcycle tire having a size such as 180/55ZR17** with a tread comprising inclined grooves on both sides of a central area comprising the equatorial plane and having a null sea/land ratio (Figure 1) to improve grip performance at turning or straight line acceleration on a wet road (abstract, machine translation, paragraphs 12, 27 and 29 of machine translation) or (b) Japan 907 suggests using a **rear tire for a two wheeled vehicle** having a tread comprising inclined grooves on both sides of a central area comprising the equatorial plane and having a null sea/land ratio (Figure 2b) and optionally (2) German 624 suggests providing a front tire with a "large" negative ratio (e.g. Figure 6) to reduce aquaplaning and providing a rear tire with a "smaller" negative ratio to improve adhesion (traction). One of ordinary skill in the art would readily appreciate, for example from the optional German 624, that the null sea / land area along the equatorial plane of a tire improves adhesion (traction). The suggestion to use a tire with a tread central region having a null sea/land area for a motorcycle comes from Japan 907 or Japan 218

instead of German 624. One of ordinary skill in the art would find German 624's teachings applicable to a rear motorcycle tire since (1) German 624 teaches that the front tire displaces water such that it is unnecessary for the rear tire to guide water away to the same degree as the front tire and discloses that the rear tire must develop good adhesion (traction) and (2) a rear tire follows a front tire in both motorcycles and four wheeled vehicles. In any event: German 624 is an optional reference.

Hence, Armellin teaches a front tire for a two wheeled vehicle and a rear tire for a two wheeled vehicle. What should the tread pattern of the front tire be? Answer: A known tread pattern for a front tire for a two wheeled vehicle. See Haas or Japan 215. What should the tread pattern of the rear tire be? Answer: A known tread pattern for a rear tire for a two wheeled vehicle. See Japan 907 or Japan 218. The use of a known tread pattern for its known intended use (e.g. front tire) obtains only the expected and predictable results (e.g. preventing hydroplaning in the case of a front tire). Furthermore, one of ordinary skill in the art would readily appreciate that different tread patterns should be used for the front tire and rear tire since (1) Armellin teaches that the front tire and rear tire of a motorcycle tire should be different and (2) the optional German 624 informs of ordinary skill in the tire art, which includes tires for two wheeled vehicles (motorcycles) and tires for four wheeled vehicles, that a rear tire tread pattern should be different than the tread pattern of a front tire to optimize aquaplaning (via the use of the front tire) and adhesion (via the use of the rear tire).

Applicant argues that Armellin does not teach that the configuration of the central zone of a tread of a front motorcycle tire should be different from the central zone of a

tread of a rear motorcycle tire. This argument is not persuasive since (1) Haas recommends using the tread pattern shown in Figure 2 for the front tire of a motorcycle (two wheeled vehicle) or Japan 215 recommends using the tread pattern shown in Figure 1 for the front tire of a two wheeled vehicle and (2) Japan 218 recommends using the tread pattern shown in Figure 1 for the rear tire of a motorcycle or Japan 907 recommends using the tread pattern shown in Figure 2a for the rear tire of a motorcycle. Use of a known tire for its known use is considered to have been obvious to one of ordinary skill in the art. Thus, a prima facie case of obviousness has been established.

With respect to applicant's argument regarding the front motorcycle tire having a sea / land ratio of about 15% to about 30% examiner comments that a suitable arrangement of grooves for a front motorcycle tire is shown by Haas (Figure 2) or Japan 215 (Figure 1) and that the claimed sea / land ratio is a result effective variable; it being emphasized that the grooves determine the sea/ land ratio. Therefore, the optimum sea/land ratio for either Haas or Japan 215's front tire tread pattern would have been obvious and could have been determined without undue experimentation. It is noted that Japan 215 shows the grooves in Figure 1 as defining a relatively small area of the tread pattern and that Japan 215 teaches using the grooves to discharge water (prevent aquaplaning). Similarly, it is noted that Haas shows the grooves as defining a relatively small area of the tread pattern and that Haas teaches that this tire has better properties with respect to the danger of aquaplaning. Thus, the applied prior art to Haas or Japan 215 provides ample motivation (prevention of hydroplaning) to provide the front tire of

Armellin's motorcycle tire (tire for two wheeled vehicle) with the claimed front tire tread pattern.

Applicant's arguments regarding German 624 are not persuasive. FIRST: German 624 is an optional reference is not necessary to establish a prima facie case of obviousness for the reasons explained above. SECOND: Although German 624 is directed to a four wheeled vehicles, its teachings as to the selection of a front tire tread pattern and a rear tire tread pattern (in contrast to the selection of a right tire tread pattern and a left tire tread pattern) is instructive to one of ordinary skill in the art faced with selecting a front tire tread pattern and a rear tire tread pattern for a motorcycle (two wheeled vehicle) because the rear tire of motorcycle follows the path of the front tire of the motorcycle tire. A rear tire follows a front tire when a vehicle travels straight regardless of whether the vehicle is a two wheeled vehicle or a four wheeled vehicle. Also, German 624 does not discourage a rear tire having a substantially null sea / land ratio. See Figure 1 of German 624.

As to claims 39-40, note the front tire of either Haas or Japan 215. Claims 39 and 40 fail to require the central zone to have structure different from that disclosed by Haas or Japan 215. The boundaries of the claimed central zone are not defined by tread structure.

As to claim 41, it would have been obvious to provide the intermediate zone of Japan 215's tire with a sea / land ratio of 15-35% in view of Japan 215's teaching to widely space the inclined grooves for draining water. Thus, the claimed sea / land ratio

is a result effective variable; it being emphasized that the grooves determine the sea/land ratio.

As to claims 42-44, the claimed curvilinear shape and inclination angle would have been obvious in view of either the teaching in Haas or Japan 215 to curve the inclined grooves.

As to claim 45, see inclined grooves in figure 2 of Haas.

As to claims 46-47, note inclined grooves of Japan 215.

As to claim 48, see inclined grooves of Haas or Japan 215.

As to claims 49-51, note the zigzag circumferential groove and curved inclined grooves of Japan 215.

As to claims 53-58, 61, 63 and 75, it would have been obvious to provide the rear tire with transverse grooves as claimed since Japan 218 or Japan 907 shows providing the rear tire with curved inclined grooves extending on both sides of the tread from a central zone having a null sea/land ratio. The claimed sea / land ratio (claims 54 and 75) would have been obvious and could have been determined without undue experimentation in view of the particular tread pattern for a rear tire of Japan 907 or Japan 218 and the applied prior art's teaching to use the grooves to improve wet performance. The claimed sea / land ratio is a result effective variable; it being emphasized that the grooves determine the sea/ land ratio. As to claim 63, note the tapered end portion of grooves of Japan 218 or Japan 907.

As to claim 64 and 65, Armellin teaches mounting tires on a two wheeled vehicle (motorcycle tire).

As to claims 66-74, note above comments on the claims dependent on claim 38.

5) **Claims 45-47, 58-60 and 62-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Armellin (US 6,244,315) in view of Haas (US 4,606,389) or Japan 215 (JP 6-183215) and further in view of Japan 218 (JP 11-208218) or Japan 907 (JP 63-116907) and further in view of optionally German 624 (DE 3901624) as applied above and optionally further in view of Nakagawa et al (US 6220320) or Japan 307 (JP 63-315307).**

As to claims 45-47, it would have been obvious to provide the front tire of Japan 215 with staggered groups of transverse grooves as claimed in view of (1) Japan 215's teaching to provide inclined grooves on both sides of a tire tread of a front tire for a two wheeled vehicle and (2) either the teaching of Nakagawa et al or Japan 307 to provide staggered groups of transverse inclined grooves on both sides of a motorcycle tire tread.

As to claims 58-60 and 62-63, it would have been obvious to provide the rear tire with staggered groups of transverse grooves as claimed in view of (1) Japan 907's teaching to provide inclined grooves on both sides of a tire tread of a rear tire for a two wheeled vehicle and (2) either the teaching of Nakagawa et al or Japan 307 to provide staggered groups of transverse inclined grooves on both sides of a motorcycle tire tread. As to claims 62 and 63, Nakagawa et al teaches a bridging groove (groove 3b) and tapered end portions for the inclined grooves.

Remarks

6) Applicant's arguments filed 9-27-10 have been fully considered but they are not persuasive.

Applicant's arguments are addressed above.

7) No claim is allowed.

8) Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1747

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven D. Maki/
Primary Examiner, Art Unit 1791

Steven D. Maki
December 6, 2010